

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

1. **(Currently Amended)** A stent-catheter arrangement for placing a stent into a vessel, the stent-catheter arrangement comprising:

a catheter including an expandable balloon having a first essentially tubular substantially cylindrical section expandable to engage an interior vessel wall, a second essentially tubular substantially cylindrical section expandable to engage the interior vessel wall, and an essentially tubular substantially cylindrical segment of reduced expandability in comparison with said first and second essentially tubular substantially cylindrical sections, said essentially tubular substantially cylindrical segment of reduced expandability being provided between said first and second essentially tubular substantially cylindrical sections, each of said first and the second essentially tubular substantially cylindrical sections being connected to said segment of reduced expandability by a tapered section configured to essentially prevent blood turbulence; and

an essentially tubular substantially cylindrical deformable stent disposed on said expandable balloon, said stent including a liquid impermeable cover,

said stent ~~being dimensioned and configured to extending~~ over said essentially tubular substantially cylindrical segment of reduced expandability and portions of said first and second essentially tubular substantially cylindrical sections,

said balloon being configured and arranged to expand said stent to form first and second essentially tubular substantially cylindrical fixing portions and an essentially tubular substantially cylindrical portion coupled to said first and second expanded fixing portions by first and second tapering portions of predetermined lengths and angles,

said essentially tubular substantially cylindrical portion having a smaller outer radial width than said first and second expanded fixing portions when said balloon is fully expanded so that said essentially tubular substantially cylindrical portion is radially spaced from the interior wall of the vessel,

one or more segments of said balloon being selectively stiffened to produce a balloon profile having the first and the second essentially tubular substantially cylindrical sections

expandable to engage the interior vessel wall, and the essentially tubular substantially cylindrical segment of reduced expandability, and the tapered sections.

2. **(Previously Presented)** The stent-catheter arrangement according to claim 1, wherein said cover is a foil or a coating.

3. **(Previously Presented)** The stent-catheter arrangement according to claim 2, wherein said foil or said coating is made from body-tolerated material.

4-7. **(Canceled)**

8. **(Previously Presented)** The stent-catheter arrangement according to claim 2, wherein said foil or said coating consists of biological material, of polymer material, of metallic material, ceramic material or elastomer material.

9. **(Canceled)**

10. **(Previously Presented)** The stent-catheter arrangement according to claim 1, wherein at least one of the one or more segments of the balloon being selectively stiffened are stiffened by coupling one or more rings to an outer surface of the balloon.

11-15. **(Canceled)**

16. **(Previously Presented)** The stent-catheter arrangement according to claim 1, wherein the one or more segments of the balloon being selectively stiffened are produced by integrating stiffening elements within the balloon during balloon production.

17-20. **(Canceled)**

21. **(Previously Presented)** The stent-catheter arrangement according to claim 2, wherein the foil or the coating comprises poly-tetra-fluoro-ethylene.

22. **(Canceled)**

23. **(Previously Presented)** The stent-catheter arrangement according to claim 1, wherein at least one of the one or more segments of the balloon being selectively stiffened are stiffened by applying one or more stiffening elements to the balloon material by a secondary process.

24. **(Previously Presented)** The stent-catheter arrangement according to claim 23, wherein the secondary process is an adhesive bonding process.

25-29. **(Canceled)**

30. (New) A stent-catheter arrangement for placing a stent into a vessel, the stent-catheter arrangement comprising:

a plastically deformable stent including a liquid impermeable cover; and

a catheter having an expandable balloon coupled thereto, the expandable balloon having first and second substantially cylindrical end sections expandable to engage an interior vessel wall and a substantially cylindrical middle section of reduced expandability in comparison with the first and second end sections, the middle section being disposed between the first and second end sections and the first and second end sections being coupled to the middle section by tapered sections, the stent being disposed upon the expandable balloon and extending over the middle section, the tapered sections, and at least portions of the first and second end sections and being deformable into a shape complementary to the shape of the expanded balloon following expansion of the balloon.

31. (New) The stent-catheter arrangement according to claim 30, wherein the plastically deformed stent includes first and second fixing portions for engaging the vessel wall, a middle portion having a diameter smaller than the diameters of the first and second fixing portions, and tapered portions coupling the first and second fixing portions to the middle portion.

32. (New) The stent-catheter arrangement according to claim 30, in which the middle section of the balloon is selectively stiffened.

33. (New) The stent-catheter arrangement according to claim 30, in which the middle section comprises one or more rings coupled to the outer surface of the balloon.

34. (New) The stent-catheter arrangement according to claim 30, in which one or more stiffening elements are bonded to the surface of the balloon.

35. (New) The stent-catheter arrangement according to claim 30, in which the liquid impermeable cover is a foil or a coating.

36. **(New)** The stent-catheter arrangement according to claim 31, in which the diameter of the middle portion relative to the diameters of the first and second fixing portions are configured to achieve blood throttling in the vessel.

37. **(New)** The stent-catheter arrangement according to claim 31, in which the tapered portions are configured to minimize blood turbulence in the vessel.

38. **(New)** The stent-catheter arrangement according to claim 30, in which one or more segments of the balloon are selectively stiffened by integrating stiffening elements within the balloon during balloon production.